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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,136	01/23/2004	Toshikatsu Kaneyama	116-040128	6098

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EXAMINER


FERNANDEZ, KALIMAH

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/764,136	<b>Applicant(s)</b> KANEYAMA, TOSHIKATSU	
	<b>Examiner</b> Kalimah Fernandez	<b>Art Unit</b> 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 5-27-04.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB08)<br>Paper No(s)/Mail Date <u>5-27-04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,578,823 issued Taniguchi and in view of US Pat No 5,798,524 issued to Kundmann et al.

3. Taniguchi teaches an electron beam apparatus (i.e. a transmission electron microscope) having an illumination optical system (3); imaging optical system (5); and an electron analyzer (6).

4. Taniguchi teaches the acceleration voltage is varied to shift the detected energy (see for example col.3, lines 42-49; col.7, lines 41-51). Taniguchi teaches also changing/regulating the signal to the lenses (see col.3, line 64-col.4, line 2).

5. Taniguchi teach multiplying the signal by the energy shift value (col.8, lines 19-35).

6. Taniguchi does not teach a deflection means and changing the signal to the deflection means in response to the energy shift.

7. However, Kundmann et al teach the desirability of a deflection means in a transmission electron microscope (col.1, lines 5-50). In Kundmann et al, the beam is deflected/moved via (106) to improve automatic correctional procedure.

8. It would have been obvious to an ordinary artisan at the time of the invention to combine Taniguchi and Kundmann et al since Kundmann et al teach automation and increased precision (see col.4, lines 44-59).

9. As per claim 2, Taniguchi teach presetting constant ratios (or calibration factors) (col.5, lines 24-31).

10. As per claims 3-4, the claimed equations are logically derived from Taniguchi's disclosure using ordinary skill in the art.

11. As per claim 7, each limitation has been addressed above.

12. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi and Kundmann et al as applied to claim 1 above, and further in view of US Pat No 5,300,775 issued to Van der Mast.

13. The combined references Taniguchi and Kundmann et al teach the claimed invention except for the use of a magnetic field and electric field.

14. However, Van der Mast teaches the level of skill and general knowledge regarding energy filter (see col.1, lines 15-33). It is widely known in the art to use electric or magnetic field in filters as illustrated in Van der Mast.

15. It would have been obvious to an ordinary artisan at the time of the invention to select a magnetic field or electric field operated energy filter, because these filters are notorious in the art and the advantage of such filters are known (e.g. ease-of-use).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 571-272-2470. The examiner can normally be reached on Mon-Tues 6:30-3:30; Wed-Thurs 8-5 and Fri.9am-6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KF



JOHN R. LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800